

Electro-Voice TGX20 4 x 5000W DSP Amplifier with OMNEO/AES/EBU

OUTPUT POWER				
Load impedance	2 Ω	2.7 Ω	4 Ω	8 Ω
IMD-SMPTE, 60 Hz, 7 kHz	< 0.15 %			
Maximum Output Power ¹ All channels driven	5200 W	6000 W	5000 W	2500 W
Number of amplifier channels	4			
Maximum Output Voltage	210 V peak			
Maximum Output Current	84 A peak			
AMPLIFIER				
Voltage Gain ref.1 kHz	32.0 dB, adjustable 24-40 dB			
Input Sensitivity ref. to Max. Output Voltage	13.7 dBu (3.73 V), adjustable 5.7-21.7 dBu			
THD3 dB below Max., AES17, 1 kHz	< 0.05 %			
IMD-SMPTE, 60 Hz, 7 kHz	< 0.15 %			
DIM100, 3.15 kHz, 15 kHz	< 0.15 %			
Crosstalkref. 1 kHz, 12 dB below Max., 8 Ω	< -80 Db			
Frequency Response ref. 1 kHz, analog into speaker out	20 Hz to 20 kHz (\pm 1 dB)			
Damping Factor,20 Hz to 200 Hz, 8 Ω	> 400			
Output Stage Topology	Class D, fixed frequency			
Signal to Noise Ratio				
A-weighted, analog input	115 dB			
A-weighted, digital input	118 dB			
Output Noise				
A-weighted, analog input	< -70 dBu			
A-weighted, digital input	< -73 dBu			
DIGITAL SIGNAL PROCESSING				
Sampling rate	48 kHz/96 kHz, OMNEO/Dante synchronized			
Signal Delay/Latency				
Analog in to Speaker Out, 48 kHz/96 kHz	0.70 ms/0.53 ms			
AES3 in to Speaker Out, 48 kHz/96 kHz	1.00 ms/0.66 ms			
Dante Network Latency	typ. 1.00 ms			
Signal Processing	32/40 bit, floating point			
User EQ	12 filters per channel, selectable as PEQ, Lo-Shelv, Hi-Shelv, Lo-ShelvQ, Hi-ShelvQ, Hi-Pass, Lo-Pass & Notch; 2 filters of them with additional asymmetric filter type			
User Delay	0 to 2000 ms per channel (units: μ s, ms, s,cm, m, inches, feet)			
Array EQ	5 filters per channel, selectable as PEQ, Lo-Shelv, Hi-Shelv, Lo-ShelvQ, Hi-ShelvQ, Hi-Pass, Lo-Pass, & All-Pass			
Array Delay	0 to 500 ms per channel (units: μ s, ms, s, cm,m, inches, feet)			
Speaker EQ	10 filters per channel, selectable as PEQ, Lo-Shelv, Hi-Shelv, Hi-Pass, Lo-Pass, & All-Pass			
Speaker X-Over	Hi-Pass & Lo-Pass per channel, 6/12/18/24/30/36/42/48 dB Bessel/Butterworth,12/24/48 dB Linkwitz-Riley; AlignmentDelay, 0 to 20 ms per channel			
Speaker FIR	up to 1025 taps, Linear Phase Filter, Linear Phase Brickwall X-Over			
Speaker Limiters	Peak Anticipation Limiter & RMS/TEMP Limiter per channel			
Other functions	Source Selection & Mix, Level, Mute, Polarity, Sine & Noise Generator, Level Meters, Impedance Measurement, & Load Monitoring			
Memory				
DSP Presets	1 Factory + 20 User			

Speaker-Pool Presets	30 speaker settings
Source Supervision & Fallback	AES3 Lock & OMNEO/Dante network supervision,switch over to alternative Source Selection
CONNECTIVITY	
Analog Audio Input/Thru	
Type	4 x 3-pin XLR female/male
Maximum Input Level	+ 24 dBu
Input Impedance, active balanced	20 kΩ
Reference level equal to digital input	+21 dBu for 0 dBFS
Digital Audio Input/Thru	
Type	2 x 3-pin XLR (alternative use of Analog In/Thru)
Format	AES3 (AES/EBU)
Input Sample Rates	32 to 192 kHz, internal Sample-Rate-Converter
Thru Connector	active buffered, direct bypass if device is unpowered
Network	
Type	2 x Neutrik etherCON/RJ45, redundant PRIMARY/SECONDARY
Format	1000base-T/100base-TX, integrated switch
Network Audio Inputs	8 channels, 48/96 kHz, OMNEO/Dante format
Network Audio Outputs(Monitor)	2 channels, 48/96 kHz, OMNEO/Dante format
Front side ServicePort	1 x USB Type A
Mains Input	1 x Neutrik powerCON-HC
Speaker Output	4 x NL4
GENERAL	
User Interface	
Display	320 x 240 pixel, 3.5" color TFT
Front panel indicators	Full color LED illuminated ring
Front panel operating elements	Rotary encoder, Capacitive Touch Screen
Rear panel indicators	2 x LED (AES3 Input mode active, Amp-Find)
Rear panel operating elements	Mains switch
Power Requirements	100 V to 240 V, 50 Hz to 60 Hz AC
Power Consumption	
Rated Power Consumption	2250 W
1/8 Maximum Output Power at 4Ω	2850 W
Idle Mode (no input signal)	110 W
Standby Mode	< 19 W
Power Supply Topology	Switching Mode Power Supply with digital controlled Power Factor Correction
Protections	Audio Limiters, High Temperature, DC, HF, Short Circuit, Back-EMF, Peak Current Limiters, In rush Current Limiters, Turn-on Delay, Mains Circuit Breaker Protection, Mains Over/Under voltage Protection
Cooling:	Front-to-rear, temperature controlled fans, supervised
Ambient Temperature Limits	+5 °C to +40 °C (+40 °F to +105 °F)
IEC Protection Class	Class I (grounded)
Electromagnetical Environment	E1, E2, E3
Color	Black
Dimensions (W x H x D), mm	483 x 88.1 x 514.2
Weight	18.3 kg (40.4 lb)
Shipping Weight	20.5 kg (45.2 lb)

Amplifier at rated conditions; all channels driven, 4Ωloads, analog input, 32 dB gain, 48 kHz sample rate,unless otherwise specified.¹Test

signal for max. output power according IHFA-202 (Dynamic-Headroom, burst 1 kHz/20 ms on/480ms off/low level -20 dB).